

ART 34 AMDT

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## CLAIMS

- 5 1. A medium to high voltage power cable comprising a conductor surrounded in order by an inner semi-conducting layer, an insulating layer, and an outer semi-conducting layer, characterized in that the insulating layer has a thickness of more than 2 mm and comprises the crosslinked product of a composition that comprises a crosslinkable polymer with hydrolysable silane groups, and a silanol condensation catalyst of formula I



- 15 or a precursor thereof, Ar being a benzene ring substituted with at least one hydrocarbyl radical such that the total number of carbon atoms of the hydrocarbyl radical(s) is 8-20, or a naphthalene ring substituted with at least one hydrocarbyl radical such that the total number of carbon atoms of the hydrocarbyl radical(s) is 20 4-18, and the catalyst of formula I containing 14-28 carbon atoms in total.

2. A medium to high voltage power cable as claimed in claim 1, wherein the insulating layer has a thickness of more than 5 mm.

- 25 3. A medium to high voltage power cable as claimed in claim 1 or 2, wherein the composition is hydrophilic.

- 30 4. A medium to high voltage power cable as claimed in claim 3, wherein the crosslinkable polymer has hydrophilic groups selected from siloxane, amide, anhydride, carboxylic, carbonyl, hydroxyl, and ester groups.

5. A medium to high voltage power cable as claimed in any one of the preceding claims, wherein the crystalline part of the polymer is at most 60% by weight.

- 35 6. A medium to high voltage power cable as claimed in any one of the preceding claims, wherein the

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hydrocarbyl radical in formula I is an alkyl substituent with 10-18 carbon atoms.

7. A medium to high voltage power cable as claimed in claim 6, wherein the alkyl substituent has 12 carbon atoms and is selected from dodecyl and tetrapropyl.

8. A composition as claimed in any one of the preceding claims wherein the polymer composition includes 0.0001-3% by weight of silanol condensation catalyst.

9. A process of preparing a medium to high voltage power cable according to any one of claims 1-8, in which a conductor is surrounded in order by an inner semi-conducting layer, an insulating layer comprising a crosslinkable polymer with hydrolysable silane groups, and an outer semi-conducting layer to form a cable, characterised in that the cable is crosslinked in the presence of steam at a superatmospheric pressure.

10. A process according to claim 9, wherein the crosslinking is carried out in a vulcanising tube.

11. A process according to claim 9 or 10, wherein the crosslinking is carried out at a pressure of 0.2-2.5 MPa.

12. A process according to claim 11, wherein the crosslinking is carried out at a pressure of 0.8-1.2 MPa.

13. A process according to any one of claims 9-12, wherein the crosslinking is carried out in the presence of saturated steam.